



UNITED STATES PATENT AND TRADEMARK OFFICE

A

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/779,844 | 02/09/2001 | Sawao Iwatani | 21.1993 | 5417 |
| 21171 | 7590 | 12/15/2005 | EXAMINER | |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | VU, THONG H | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2142 | |

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,844

Applicant(s)

IWATANI, SAWAO

Examiner

Thong H. Vu

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>5/204</u> | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-26 and new claim 27 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-26 have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made in view of Blumenau-Yamada references.

Claim Rejections - 35 USC § 101

3. Claims 4-7,20 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific asserted utility or a well established utility.

Claim 20 does not disclose **transmitting access management information, transmitting region information, transmitting access limit information**

Claims 4-7,20 also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20-27, 4-7 are rejected under 35 U.S.C. § 102(e) as being anticipated by Blumenau et al [Blumenau 6,421,711 B1].

4. As per claim 20, Blumenau discloses a method of integrating and controlling a storage area network system [Blumenau, col 42 lines 20-30], comprising:

managing including receiving and/or transmitting, by an integrated management mechanism access relationships between host computers of the storage area network and storage devices of the storage area network [i.e.: program for each host processor may access storage from every virtual port], wherein a switch connects the host computers and the storage devices [Blumenau, col 44 line 60-col 45 line 28]

5. As per claim 21, Blumenau discloses establishing access paths between the host computers and the storage devices, said access paths being established and controlled by the integrated management mechanism [Blumenau, col 44 line 60-col 45 line 28].

6. As per claim 22, Blumenau discloses controlling by the integrated management mechanism access to regions of the storage devices by the host computers network [Blumenau, display region, col 12 lines 12-47].

7. As per claim 23, Blumenau discloses establishing by the integrated management mechanism storage affinity (i.e.: setting) based on the access paths [Blumenau, configure a route /path, col 10 lines 17-33].

8. As per claim 24, Blumenau discloses establishing zoning for switches interconnecting the host computers and the storage devices of the storage area network [Blumenau, col 44 line 60-col 45 line 28].

9. As per claim 25, Blumenau discloses establishing settings in storage management mechanisms of respective storage devices [Blumenau, storage network configuration, Fig 37-38].

10. As per claim 26, Blumenau discloses the integrated management mechanism integrates related, reported problems into a single problem report [Blumenau, error detected, col 11 lines 42-55].

11. As per claim 27, Blumenau discloses the access relationships comprise one (or more of) access route management information for the storage devices and for the host computers, region information for the switch, or access restriction information for the host computers and for the storage devices as inherent feature of storage network configuration.

12. As per claims 4-5, contains a similar limitations set forth in claim 20. Therefore claims 4-5 are rejected for the same rationale set forth in claim 20.

Art Unit: 2142

13. As per claim 6, Blumenau discloses a Storage devices in a storage area network system including host computers and switches, and an integrated management mechanism integrating and managing the storage area network system, each of said storage devices comprising:

a storage management mechanism establishing conditions of access restrictions for the storage device based on access restriction information transmitted by the integrated management mechanism, said switches interconnecting the host computers and the storage devices [Blumenau, restricted access, col 1 line 40-col 2 line 40; Fig 28].

14. As per claim 7, contains a similar limitations set forth in claim 6. Therefore claim 7 is rejected for the same rationale set forth in claim 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over. Blumenau et al [Blumenau 6,421,711 B1] in view of Yamada et al [Yamada, 5,617,537]

15. As per claim 1, Blumenau discloses a storage area network management system comprising:

host computers, each comprising a storage area network management mechanism [Blumenau, host and storage network, Fig 1]; storage devices, each comprising a storage management mechanism;

switches coupled to the host computers and to the storage devices, said switches interconnecting the host computers and the storage devices, each of the switches comprising a region-setting mechanism (i.e.: subsystem) [Blumenau, host, switch and storage subsystem, col 8 line 46-col 9 line 17];

an integrated management mechanism integrating and controlling the storage area network, said integrated management mechanism including access route information of the host computers and the storage devices and, based on said access route information [Blumenau, col 42 lines 20-30],

However Blumenau does not explicitly detail

“transmitting access management information to the storage devices and the storage area network management mechanisms of the host computers,

transmitting region information to the region-setting mechanisms of the switches, and

transmitting access limit (i.e.: restrict) information concerning the host computers to the storage management mechanisms of the storage devices”.

It was well-known in the art at the time the invention was made that the access management information (i.e.: control information), access right and region information (i.e.: area address) could be transferred, copy as request [see Yamada, Nishimura, Driscoll references]

Therefore it would have been obvious to an ordinary skill in the art at the time the invention was made to incorporate the access management, access limit information and region information transfer via network as taught by Yamada [Yamada, col 49 line 34-col 54 line 35] into the Blumenau's apparatus in order to utilize the multi hosts or processors and storage subsystem. Doing so would improve the efficiency of management the storage network.

16. As per claim 2, Blumenau-Yamada disclose the integrated management mechanism obtaining a configuration status of the storage area network from each of the storage devices, the switches, and the host computers and stores said configuration status as storage area network configuration settings information, and wherein at regular intervals, or when instructed by a system administrator, the integrated management mechanism gathers current configuration status of the storage area network, compares the current configuration status to the configuration settings information that was collected, and detects discrepancies based upon the comparison [Blumenau, administrator and configuration col 19 line 48-col 20 line 33; administrator and mapping information, col 23 lines 8-29].

17. As per claim 3, Blumenau-Yamada disclose the integrated management mechanism obtaining information on the access relationships from the host computer storage area network management mechanism, switches and/or the storage devices, and checking the compatibility of the access paths and, if the integrated management

Art Unit: 2142

mechanism finds any access paths which are **not** set up correctly, sending out a notice about problems in a section corresponding thereto [Blumenau, error detect, col 11 lines 43-55].

18. As per claim 15, Blumenau-Yamada disclose a storage area network system comprising:

host computers; storage devices, each comprising a storage management mechanism; switches, each switch having a region setting mechanism, interconnecting the host computers and the storage devices; and an integrated management mechanism integrating and controlling the storage area network and comprising access path information of the host computers and storage devices, wherein using said access path information, the integrated management mechanism transmitting access management information to the storage devices and to the storage area network management mechanism, transmitting region information to the region-setting mechanisms of the switches, and transmitting access restriction information concerning the host computers to the storage management mechanisms of the storage devices [see claim 1 rejection],

wherein when the storage area network management system is started up and the access path information has not been set up the integrated management mechanism first sets up the region-setting mechanisms of the switches so that **no** access is permitted, and, after that, the integrated management mechanism sets up

Art Unit: 2142

regions on the regions setting mechanisms of the switches (i.e.: configuration a new /added devices, ports) [Blumenau, new ports, device added, col 11 lines 31-41].

19. As per claims 8-14,16-19 contain a similar limitations set fort in claims 1-3.

Therefore claims 8-14,17-19 are rejected for the same rationale set forth in claims 1-3.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thong Vu*, whose telephone number is (571)-272-3904. The examiner can normally be reached on Monday-Thursday from 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Andrew Caldwell*, can be reached at (571) 272-3868. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thong Vu
Primary Examiner
Art Unit 2142

A handwritten signature in black ink, appearing to read 'Thong Vu', with a long horizontal stroke extending to the right.